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| BROOKHAVEN NATIONAL LABORATORY NATIONAL SYNCHROTRON LIGHT SOURCE | | Number: LS-SDL-0017 | Revision: B |
| | | Effective: 7/18/2006 | Page 1 of 3 |
| Subject: Shielding Inspection Procedure | | | |
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*Document must contain approved signatures for validity

1.0 Scope

This procedure outlines the application of shielding checklists for the Source Development Laboratory (SDL).

2.0 Purpose

The shielding systems for the SDL are an important component of radiation protection strategy that ensures safe operation of the facility. It is important to verify their configuration and integrity on a regular basis. This procedure describes the correct application of the checklists, the frequency of inspections, and the proper record keeping practices to ensure that this safety system is never compromised.

3.0 Procedure

Basically there are two component shielding systems that are tracked by checklists. Those that are internal to the machine enclosure, itemized on the SDL Shielding Checklist (LS-SDL-0004) and the enclosure itself which is itemized on the SDL Enclosure Inspection Checklist (LS-SDL-0016). The SDL linac may not be operated unless valid shielding checklists are posted, as noted below.

3.1 Recordkeeping

- For both shielding systems, the most recent completed checklist is posted in the holders on the shield wall near the linac power supply racks.
- All previous checklists are filed in the three-ring binder "Shielding Checklists" stored with the other SDL operations documents and records in building 729.
- If shielding work is undertaken (with proper work authorization) the posted checklist(s) will be moved to the binder.
- Whenever a checklist is removed or posted, an entry will be made in the operations log.
- If the machine is shut down, a "Shut-down Status" declaration may be made in the operations log and both posted checklists then moved to the binder.
- Checklists in the binder no longer represent current shielding status, and a checklist in the binder may not be re-posted.

3.2 Frequency of Inspections

For the components inside the enclosure (SDL Shielding Checklist, LSSDL-0004), inspections shall be performed whenever fixed

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- shielding has been moved. This does not include engineered movable shielding (for example, the gun lead shield curtains whose positions are controlled by interlock contact switches).
- The enclosure components (SDL Enclosure Inspection Checklist (LS-SDL-0016) need to be inspected at least once each month during operations of the SDL.
- Inspections do not need to be performed if the machine is shut down, if a status declaration has been made as noted in section 3.1.

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NSLS REVISION & PERIODIC REVIEW LOG

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> See NSLS Quality Control Coordinator for original revision and review signatures <

REVISION TABLE

| Rev | Description | Date |
|-----|--|---------|
| A | First Issue | 7/15/03 |
| B. | Modify the SDL Enclosure Inspection Checklist frequency from weekly to monthly | 7/18/06 |
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PERIODIC REVIEW TABLE

Complete this table to record the completion of periodic reviews for an existing controlled document. A successful periodic review will reveal the existing document is current, correct, and does not require any revision/change.

Document Review Frequency

3 years

| Rev | Date | Reviewed By (Print): | Signature: |
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